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# HUNTER VALLEY VZ JOURNAL

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PRODUCED BY HV VZ USER'S GROUP
A NON PROFIT PUBLICATION
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## FRONT COVER

IT SAYS IT ALL. I HAVE MOVED AGAIN, BUT NOT VERY FAR AND HAVE NO PLANS MOVING AGAIN UNLESS I WIN LOTTO OR SOMETHING SIMILIAR. IT IS VERY NICE HAVING A PLACE OF MY OWN AGAIN AFTER BOARDING FOR A COUPLE YEARS WITH MY BROTHER.

## HELP - SELL & .ELL PAGE 3

APOLOGIES, NEXT/FUTURE ISSUES, FOR SALE, PUBLIC DOMAIN SOFTWARE AND BACK ISSUES.

## LIST UTILITY BY L MILBURN PAGES 4-6

LIST IS A SMALL ROUTINE WHICH CAN BE CALLED FROM A BASIC PROGRAM AND LISTS A BASIC PROGRAM STORED ON DISK TO THE PRINTER (OR SCREEN AFTER A SMALL MOD) AND THE BASIC PROGRAM WILL KEEP RUNNING AFTER THE CALL.

## DOS BUGS 2 BY L MILBURN PAGE 6

THIS TIME LES HAS FOUND A BUG WITH THE DCOPY COMMAND AND SHARES HIS DISCOVERY WITH OTHER VZ USERS.

## BASIC COMMAND ABBREVATIONS BY BOB KITCH PAGE 8

THERE ARE A NUMBER OF UNDOCUMENTED COMMAND ABBREVATIONS WHICH BOB BRINGS TO OUR ATTENTION AND CAN BE USED BY PROGRAMERS.

## INVERSE CHARACTER SET BY BOB KITCH PAGES 7-10

THE SHAPES OF THE VZ INVERSE CHARACTER SET IS HELD IN ROM AND CONTAIN SOME ERRORS. IF YOU STUDY PAGE 10 YOU'LL SEE THEM. THE PROGRAM WILL ALLOW YOU TO A HAVE A LOOK AT YOUROWN ROM AND SEE FOR YOURSELF.

## BASIC & SOURCE CODE TO WP FILE BY D MITCHELL PAGES 10-14

THIS PROGRAM WAS NORMALLY AVAILABLE WITH DAVE MITCHELL'S E & F DISK WP PATCH3.3. IT CONVERTS BASIC PROGRAMS AND SOURCE CODE FILES TO DISK WP FILES. IT IS VERY FAST AND VERY EASY TO USE AND VERY USEFUL.

## VZ NUMBERS FREQUENCY PAGES 14-18

THIS PROGRAM IS DESIGNED TO KEEP TRACK OF WINNING AND/OR SUPPLEMENTARY NUMBERS IN POOLS AND GO LOTTO. WITH SOME MINOR MODIFICATIONS THIS PROGRAM COULD BE ALTERED TO KEEP TRACK OF OTHER NUMBER FREQUENCIES. OZ LOTTO MODS IN NEXT ISSUE.

## VZ-EPSON PRINTER PATCH V1.4 BY L TAYLOR - PUBLIC TAYLOR PAGE 19

THE INSTRUCTIONS FOR ABOVE ARE REPRODUCED FOR THOSE WHO HAVE PROGRAM BUT NOT THE INSTRUCTIONS.

## NEW PUBLIC DOMAIN SOFTWARE PAGE 20
## USER GROUPS
## CONTRIBUTIONS
## SUBSCRIPTIONS

**DISCLAIMER:** EVERY EFFORT IS MADE TO INSURE THE ACCURACY OF INFORMATION CONTAINED WITHIN BE IT GENERAL, TECHNICAL, PROGRAMMING, ETC. NO RESPONSIBILITY CAN BE ACCEPTED BY HUNTER VALLEY VZ USERS' GROUP OR AUTHOR AS A RESULT OF APPLYING SUCH INFORMATION IN PRACTICE.

## APOLOGIES . . .

MY SINCEREST APOLOGIES TO ALL VZ JOURNAL READERS FOR THE VERY, VERY LATENESS OF THIS ISSUE. AS MENTIONED IN LAST ISSUE I HAVE A MEDICAL PROBLEM WHICH GOT MUCH WORSE NEAR COMPLETION OF MY NEW HOUSE. IT AFFECTED ALL MY JOINTS AND MADE LIFE UNBEARABLE FOR MANY MONTHS.

I HAD TO BE OUT OF MY LAST ADDRESS BY A CERTAIN DATE AND SO I PUSHED MYSELF AND AM STILL PAYING FOR IT NOW. I HAD MANY RELAPSES SINCE THEN BUT THANKFULLY I'M STARTING TO FEEL NEAR NORMAL. THE NEXT ISSUE SHOULD BE ON TIME AS I'VE LEARNED MY LESSON AND AM TAKING THINGS EASY.

## NEXT/FUTURE ISSUE/S . . .

FINAL PART OF VZ FREQUENCY.
MULTIPLE USR CALL ROUTINE (USED IN VZ FREQUENCY).
MACHINE CODE DIRECTORY ROUTINE (USED BY VZ FREQUENCY).
MINI AMPLIFIER FOR THE VZ.
MANUAL DATA INPUT FOR VZ LOTTO.
JOURNAL INDEX PART II

## FOR SALE - FOR SALE . . .

1 OFF VZ 300
2 OFF DISK DRIVES
1 OFF PRINTER INTERFACE
1 OFF GREEN SCREEN MONITOR
1 OFF LIGHT PEN
1 OFF DR20 TAPE DATA RECORDER
1 OFF 16 MEMORY EXPANSION
1 OFF DISK CONTROLLER
1 OFF JOYSTICK INTERFACE
1 OFF 8 BIT PORT (HV VZ J #30)
1 OFF MODEM AND INTERFACE
ASSORTED GAME CASSETTES
BOX OF ASSORTED DISKS, BOOKS, MAGAZINES AND MANUALS

$250.00 ONO. WILL SEPERATE BUT WOULD PREFER TO SELL AS ONE LOT.

ALSO FOR SALE SPARE PARTS INCLUDING:

APPROXIMATELY 6 VZ'S, EXPANSION CASES, MODEMS, JOYSTICKS, MEMORY, CPU CHIPS (SOME NEW), MONITORS (GOING).

BEST OFFER FOR ABOVE . . .

BEN HOBSON PO BOX 255 QUIRINDI 2343 (067) 462 076 AFTER 6.30 PM

## PUBLIC DOMAIN SOFTWARE

IT HAS BEEN SUGGESTED TO ME THAT I ASSEMBLE A NUMBER OF DISKS CONTAINING PUBLISHED PROGRAMS, PUBLIC DOMAIN SOFTWARE, ETC AND OFFER TO READERS AT MINIMAL COST TO COVER EXPENSES. PLEASE LET ME KNOW YOUR IDEAS ON THIS AND WHAT TYPE OF SOFTWARE YOU WOULD LIKE. ED.

## BACK ISSUES . . .

MOST BACK ISSUES ARE IN STOCK AND AVAILABLE AT FOLLOWING PRICES.

CURRENT ISSUE - $3.50 EACH - INCLUDES POSTAGE
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6 OR MORE ISSUES - $2.75 EACH - INCLUDES POSTAGE
OUT OF STOCK ISSUES - $3.50 EACH - INCLUDES POSTAGE

# LIST UTILITY BY LESLIE MILBURN 44-4

LIST IS A SMALL ROUTINE WHICH LISTS A BASIC PROGRAM STORED ON DISK TO THE PRINTER (OR SCREEN AFTER A SMALL MOD).

SO WHATS NEW? I HEAR YOU ASK.

WELL, THE BEAUTY OF THIS UTILITY IS THAT IT CAN BE CALLED FROM A BASIC PROGRAM AND DOES NOT RE-ENTER IMMEDIATE MODE AFTER LISTING THE PROGRAM, (I.E. THE CALLING BASIC PROGRAM KEEPS RUNNING).

WHAT'S THE USE?

THE MAIN USE OF LIST IS TO PROVIDE AN EASY WAY TO LIST MANY BASIC PROGRAMS IN A "BATCH LIKE" PROCESS WITHOUT REQUIRING INTERVENTION BY THE USER.

HOW TO USE LIST.

(1) A CONTROLLING BASIC PROGRAM IS REQUIRED. IT MUST LOAD THE ROUTINE, SET UP THE USR ADDRESS AND PROVIDE THE FILENAMES OF THE PROGRAMS TO LIST.

(2) THE CONTROLLING BASIC PROGRAM MUST BE RELOCATED SUCH THAT ITS START ADDRESS IS ABOVE THE END ADDRESS OF ALL OF THE BASIC PROGRAMS IT IS LISTING.

(3) X=USR("FILENAME") IS THE SYNTAX REQUIRED TO LIST A FILE. AFTER THE CALL, X INDICATES WHETHER AN ERROR OCCURRED (NON-ZERO = ERROR).

RELOCATING A BASIC PROGRAM

THE EASIEST WAY TO RELOCATE A PROGRAM IS TO USE THE EXT12 UTILITY. AN ALTERNATIVE IS TO MOVE THE START OF BASIC POINTER AS DESCRIBED IN THE TECHNICAL MANUAL.

RUNNING A RELOCATED BASIC PROGRAM

IF YOU TRY TO RUN A RELOCATED BASIC PROGRAM AND YOU GET A SYNTAX ERROR TRY THE FOLLOWING:

```
SOB=(PEEK(30884)+256*PEEK(30885))-1
POKE SOB,0 OR POKE SOB-65536,0 IF SOB > 32767
```

NOW TYPE RUN

HERE IS AN EXAMPLE OF A CONTROLLING BASIC PROGRAM (NOTE THAT LIST.BIN IS LOCATED AT 29184)

```
10 BLOAD"LIST.BIN"
20 POKE30862,0:POKE30863,114
30 POKE29282,0 'FOR SCREEN LIST
40 X=USR("FILE1")
50 X=USR("FILE2")
60 X=USR("FILE3")
70 X=USR("ETC  ")
80 X=USR("ETC  ")
```

LIST SOURCE CODE ON NEXT 2 PAGES

# LIST UTILITY SOURCE CODE

```
001 ;*************************
002 ;*  MACHINE CODE ROUTINE  *
003 ;* PRINTS A BASIC PROGRAM *
004 ;*************************
005 ;
006 ;NOT RELOCATABLE CODE.
007 ;
008 ;*************************
009 ;ROM SUBROUTINES.
010 ;
011 PCHR EQU  032AH
012 PINT EQU  0FAFH
013 FLNE EQU  1B2CH
014 PCR  EQU  20FEH
015 IMOD EQU  2828H
016 PMSG EQU  2B75H
017 DTOK EQU  2B7EH
018 PWON EQU  4008H
019 PWOF EQU  400BH
020 LOAD EQU  4041H
021 ;
022 ;*************************
023 ;BASIC PROGRAM POINTERS
024 ;
025 DVCE EQU  789CH
026 SBAS EQU  78A4H
027 BPTR EQU  78A7H
028 RTYP EQU  78AFH
029 EBAS EQU  78F9H
030 ARG  EQU  7921H
031 ;
032 ;*************************
033 ;CONSTANT DEFINITIONS
034 ;
035 VINT EQU  2
036 VSTR EQU  3
037 SDEV EQU  0
038 PDEV EQU  1
039 FTYP EQU  "T"
040 STAK EQU  7700H
041 ;
042 ;*************************
043 ;
044 ;CHECK ARG IS A STRING
045       CP   VSTR
046       JP   NZ,ERR
047 ;CHECK IF IMMEDIATE MODE
048       CALL IMOD
049 ;SAVE DOS VECTOR
050       LD   (DOS),IY
051 ;CLEAR FILENAME BUFFER
052       LD   DE,(DOS)
053       LD   HL,(DOS)
054       INC  HL
055       INC  DE
056       INC  DE
057       LD   (HL),32
058       LD   BC,7
059       LDIR
060 ;GET STRING ARG (FILENAME)
061       LD   HL,(ARG)
062 ;A=STRING LENGTH
063       LD   A,(HL)
064       INC  HL
065 ;IF STRING LEN=0, RETURN
066       CP   0
067       JR   Z,ERR
068 ;ENSURE STRING LEN <= 8
069       CP   9
070       JP   M,LP1
071       LD   A,8
072 LP1   LD   E,(HL)
073       INC  HL
074       LD   D,(HL)
075       EX   DE,HL
076 ;COPY FILENAME TO BUFFER
077       LD   DE,(DOS)
078       INC  DE
079       LD   C,A
080       LD   B,0
081       LDIR
082 ;SAVE STACK POINTER
083       LD   (STCK),SP
084 ;SET STACK PTR TO FREE MEM
085       LD   SP,STAK
086 ;SAVE IMPORTANT BASIC PTRS
087       LD   HL,(SBAS)
088       PUSH HL
089       LD   HL,(EBAS)
090       PUSH HL
091       LD   HL,(BPTR)
092       PUSH HL
093 ;SET FILETYPE TO BASIC TYPE
094       LD   (IY+9),FTYP
095 ;LOAD FILE SPECIFIED FROM
096 ;DISK IN CURRENT DRIVE
097       CALL PWON
098       CALL LOAD
099 ;SAVE ERROR CODE.
100       PUSH AF
101       CALL PWOF
102 ;RESTORE THE ERROR CODE
103       POP  AF
104 ;WAS THERE A DISK ERROR?
105       CP   0
106       JR   NZ,ERR2
107 ;SET THE OUTPUT DEVICE TO
108 ;THE PRINTER
109       LD   A,PDEV
110       LD   (DVCE),A
111 ;SET THE BASIC INPUT BUFFER
112 ;TO OUR OWN BUFFER
113       LD   HL,IBUF
114       LD   (BPTR),HL
115 ;SEARCH FOR THE FIRST BASIC
116 ;PROGRAM LINE
117       LD   DE,0
118       CALL FLNE
119 ;SAVE FOUND LINE PTR
120       PUSH BC
121 LOOP  POP  HL
122 ;BC = PTR TO NEXT LINE
123       LD   C,(HL)
124       INC  HL
```

```
125        LD    B,(HL)
126        INC   HL
127 ;CHECK IF END OF PROGRAM
128        LD    A,B
129        OR    C
130        JR    Z,LEXX
131 ;SAVE PTR TO NEXT LINE
132        PUSH BC
133 ;BC = LINE NUMBER
134        LD    C,(HL)
135        INC   HL
136        LD    B,(HL)
137 ;SAVE LINE NUMBER
138        PUSH BC
139 ;HL = TOKENISED LINE PTR
140        INC   HL
141 ;SAVE LINE PTR. HL=LINE NO
142        EX    (SP),HL
143 ;PRINT THE LINE NUMBER
144        CALL PINT
145 ;OUTPUT A SPACE
146        LD    A,32
147        CALL PCHR
148        POP   HL
149 ;DETOKENISE STRING POINTED
150 ;TO BY HL
151        CALL DTOK
152 ;LIST LINE ON OUTPUT DEVICE
153        LD    HL,IBUF
154        CALL PMSG
155 ;OUTPUT A CR
156        CALL PCR
157        JR    LOOP
158 ;
159 ;EXIT FROM ROUTINE ON ERROR
160 ERR    LD    HL,1
161        JR    LEX1
162 ERR2   EQU   $
163 ;
164 ;RESTORE IMPORTANT BASIC
165 ;PROGRAM POINTERS
166        POP   HL
167        LD    (BPTR),HL
168        POP   HL
169        LD    (EBAS),HL
170        POP   HL
171        LD    (SBAS),HL
172        LD    HL,1
173        JR    LEX1
174 ;
175 ;EXIT FROM ROUTINE NO ERROR
176 LEXX EQU  $
177 ;
178 ;OUTPUT TWO CR'S
179        CALL PCR
180        CALL PCR
181 ;RESTORE IMPORTANT BASIC
182 ;PROGRAM POINTERS
183        POP   HL
184        LD    (BPTR),HL
185        POP   HL
186        LD    (EBAS),HL
187        POP   HL
188        LD    (SBAS),HL
189 ;RESET OUTPUT DEVICE TO
190 ;THE SCREEN
191        LD    A,SDEV
192        LD    (DVCE),A
193 ;HL=RET VALUE. ZERO=SUCCESS
194        LD    HL,0
195 LEX1   LD    (ARG),HL
196 ;SET RETURN ARG TYPE TO INT
197        LD    A,VINT
198        LD    (RTYP),A
199 ;RESTORE STACK POINTER
200        LD    SP,(STCK)
201        RET
202 ;
203 ;***************************
204 ;DATA STORAGE AREA
205 ;
206 IBUF DEFS 100
207 STCK DEFW 0
208 DOS  DEFW 0
```

## DOS BUGS REPORT 2 IN (DSE) DOS V1.2 BY LESLIE MILBURN

I HAVE FOUND YET ANOTHER BUG IN DOS V1.2. THIS TIME IT IS TO DO WITH THE DCOPY COMMAND. IF DCOPYING A SINGLE FILE USING TWO DRIVES AND THE DESTINATION DISK IS WRITE PROTECTED, THE DESTINATION DRIVE IS LEFT SPINNING AND NO ERROR MESSAGE IS DISPLAYED.

IF ANYBODY HAS FOUND ANY OTHER BUGS IN ANY DOS SYSTEM, PLEASE INFORM THE EDITOR WHO CAN PASS THE INFORMATION ON TO OTHER USERS.

**NOTE:** IF WRITING TO EDITOR PLEASE NOTE NEW ADDRESS AND PHONE NUMBER WHICH IS SHOWN ON FRONT COVER.

# 44-7 BASIC COMMAND ABBREVIATIONS
## BY BOB KITCH

A NUMBER OF ABBREVIATED FORMS OF BASIC COMMANDS WILL RUN ON THE VZ. THESE SHORTENED FORMS ARE NOT FULLY DOCUMENTED IN THE MANUALS ACCOMPANYING THE MACHINES; SO I HAVE SET THEM OUT BELOW. TRY THEM, AS THEY SAVE A LITTLE SPACE ON THE 32 CHARACTER LONG LINE. THEY SHOULD BE USED WITH CAUTION AS THEY CONTRIBUTE LITTLE TO PROGRAM READABILITY.

| FULL COMMAND | ABBREVIATED COMMAND |
|---|---|
| 10 REM A NON-EXECUTABLE LINE | 10 ' A NON-EXEC.... |
| 20 PRINT"SEE THIS"" | 20 ?"SEE THIS" |
| 30 SOUND 1,3:SOUND 2,5 | 30 SOUND 1,3;2,5 |
| 40 LET A=23 | 40 A=23 |
| 50 IF A=1 THEN GOTO 999 | 50 IF A=1,GOTO 999 |
| | ...OR... |
| | 50 IF A=1,999 |
| 60 PRINT"ENTER VALUE":INPUT A | 60 INPUT"ENTER VALUE";A |

TO PUT THE INPUT "?" ANY WHERE ON THE SCREEN USE:

```
70 PRINT@488;:INPUT A
```

MULTIPLE NEXT STATEMENTS ARE NOT REQUIRED IF THEY FOLLOW EACH OTHER IN THE PROGRAM.

EDITOR'S NOTE:

THE USE OF (') INSTEAD OF REM SAVES TWO CHARACTER SPACES ON THE PROGRAM LINE BUT USES 3 BYTES OF MEMORY INSTEAD OF 1 BYTE.

THE USE OF (?) INSTEAD OF PRINT SAVES CHARACTER SPACES ON THE PROGRAM LINE, BUT ONCE ENTERED THE VZ CONVERTS IT TO THE PRINT STATEMENT. EACH NUMBERED LINE ON THE VZ CONSISTS OF 64 CHARACTER SPACES INCLUDING THE LINE NUMBER.

IT IS POSSIBLE BY USING (?) MANY TIMES ON A LINE TO FORCE THE VZ TO EXCEED THE 64 CHARACTER LIMIT. THE VZ WILL DISPLAY IT, BUT WILL NOT ALLOW EDITING OF THE EXTRA CHARACTERS/LINES AND IF YOU PRESS RETURN ON THE LINE THE EXTRA CHARACTERS/LINES WILL DISAPEAR.

WHEN RENUMBERING YOUR PROGRAM THE USE OF (') INSTEAD OF REM CAN CORRUPT YOUR PROGRAM AND BRING ON STRANGE RESULTS WHICH COULD BE DIFFICULT TO CORRECT FOR THE NOVICE PROGRAMMER. AS BOB MENTIONED USE THE ABREVIATED COMMANDS WITH CAUTION.

# DISPLAY INVERSE CHARACTER SET
## BY BOB KITCH

WHEN INVERSE CHARACTERS ARE SENT TO A DOT MATRIX PRINTER THE PRINTER SHIFTS TO GRAPHICS MODE AND REQUIRES A ROUTINE TO SUPPLY THE APPROPRIATE SHAPES TO THE HEAD. (NORMAL CHARACTERS ARE HELD IN THE PRINTERS ROM). IN THE VZ COMPUTER A TABLE OF SHAPES IS LOCATED AT 3B94H TO 3CD3H (15252 TO 15571 IN ROM.

THERE ARE 64 CHARACTERS, EACH USING 5 BYTES TO DEFINE THEIR GRAPHIC SHAPE. THE SHAPES MAY BE DECODED AND OUTPUT TO THE SCREEN AS IS DONE IN THIS PROGRAM. NOTE THERE ARE ERRORS IN THE ROM. THE 5 BYTES DEFINE A 5 BY 8 DOT MATRIX WHICH IS THE SHAPE OF THE CHARACTER, WHICH INCIDENTLY ARE NOT ORDERED ACCORDING TO THE ASCII CODE.

WHEN INVERSE CHARACTERS ARE SENT TO A DOT MATRIX PRINTER THE PRINTER SHIFTS TO GRAPHICS MODE AND REQUIRES A ROUTINE TO SUPPLY THE APPROPRIATE SHAPES TO THE HEAD. (NORMAL CHARACTERS ARE HELD IN THE PRINTERS ROM). IN THE VZ COMPUTER A TABLE OF SHAPES IS LOCATED AT 3B94H TO 3CD3H (15252 TO 15571 IN ROM.

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THE FIRST BYTE DEFINES THE LEFT HAND EDGE OF THE CHARACTER WHICH IS THE FIRST PRINTED DURING A PASS OF THE PRINTER HEAD. IN TANDY PRINTERS THE MSB IS THE LOWERMOST PIN OF THE HEAD AND LSB IS THE UPPERMOST PIN. THE PINS ON EPSON PRINTER HEADS ARE ARRANGED IN THE OPPOSITE SENSE. THIS REQUIRES THAT THE BITS IN EACH BYTE BE REVERSED.

```
010 '*****************************************************************
020 '***        DISPLAY INVERSE CHARACTER  SET IN ROM            ***
030 '***            AS USED BY DOT MATRIX PRINTER                ***
040 '***              BY R. B. KITCH   27/9/86                   ***
050 '*****************************************************************
090 :
100 DIM MK%(7) :'***VECTOR OF BIT MASK VALUES - POWERS OF 2
110 DIM BT%(7) :'***VECTOR OF DECODED BITS FROM ROM VALUE.
120 :
130 '***FILL MASK VECTOR WITH POWERS OF 2 FOR DECODING.
140 FOR I%=0 TO 7 :MK%(I%)=2^I% :NEXT I%
150 :
160 '***INITIALIZE PARAMETERS - MAY BE CHANGED TO VARY SCREEN.
170 CC%=4     :'***CHARACTER COLOUR.  (1-4)
180 BC%=2     :'***BACKGROUND COLOUR. (1-4)
190 CS%=0     :'***COLOUR SET. (0-1)
200 CW%=3     :'***COLUMN WIDTH BETWEEN CHARACTERS.
210 SP%=16    :'***ROW SPACING FOR CHARACTERS.
220 HS%=0     :'***STARTING HORIZONTAL POSITION ON HI-RES SCREEN.
230 VP%=3     :'***STARTING VERTICAL POSITION ON HI-RES SCREEN.
240 HM%=127   :'***MAXIMUM HORIZONTAL POSITION. (0-127)
250 :
260 '***SET UP MAIN LOOP TO STEP THROUGH ROM FROM 3B94H-3CD3.
270 BK%=0                     :'***BYTE COUNTER FOR EACH CHARACTER.
280 HP%=HS%                   :'***SET HORIZONTAL POSITION TO START
290 MODE(1) :COLOR,CS%        :'***SET HI-RES SCREEN AND COLOR SET.
300 FOR AD%=15252 TO 15571    :'***ROM ADDRESSES FOR SHAPE TABLE.
310   DV%=PEEK(AD%)           :'***DECIMAL VALUE IN ROM.
320 :
330 '***DECODE THE INDIVIDUAL BITS OF DV% AND STORE IN BT%().
340 '***THE MASK VALUES IN MK%() ARE "ANDED" WITH THE VALUE.
350 '***THE RESULT STORED IN BT%() IS THE "COLOUR" OF THE BIT.
360   FOR I%= 0 TO 7          :'***PROCEED FROM LSB TO MSB.
370     IF DV% AND MK%(I%) THEN BT%(I%)=BC% ELSE BT%(I%)=CC%
380   NEXT I%
390 :
400 '***CHECK THAT THERE IS ENOUGH ROOM TO PLOT CHARACTER.
410   IF BK%=0 AND HM%-HP%<4 THEN HP%=HS% :VP%=VP%+SP%:'*NEW ROW
420   BK%=BK%+1               :'***INCREMENT BYTE COUNTER.
430 :
440 '***OUTPUT BYTE TO SCREEN.
450   FOR I%=0 TO 7
```

```
460     COLOR BT%(I%)        :'***SET COLOUR OF BIT.
470     SET(HP%,VP%+I%)      :'***PLOT BIT.
480   NEXT I%
490 :
500 '***PREPARE FOR NEXT BYTE.
510   HP%=HP%+1              :'***INCREMENT HORIZONTAL POSITION.
520   IF BK%=5 THEN BK%=0 :HP%=HP%+CW%      :'***NEW CHARACTER.
530 NEXT AD%
590 GOTO 590
```

EDITOR'S COMMENTS:

THE VZ AS SOLD HAS A TANDY PRINTER COMPATIBLE BASIC ROM. FOR THOSE PERSONS WHO HAVE AN EPSON PRINTER COMPATIBLE EPROM THE ABOVE PROGRAM WILL PRINT THE INVERSE CHARACTERS UPSIDE DOWN. TWO MINOR CHANGES ARE REQUIRED TO FIX THE PROBLEM:

```
OLD LINE: 230 VP%=3          OLD LINE: 470 SET(HP%,VP%+I%)
NEW LINE: 230 VP%=11         NEW LINE: 470 SET(HP%,VP%-I%)
```

DISK USERS: ENTER THE FOLLOWING LINES FOR EXTRA FUNCTIONS.

```
590 GOTO 820
600 A$=INKEY$:A$=INKEY$:IF A$=""THEN 600
610 :
620 IF A$="U"THEN 700:'          ;GOES TO HI-RES SCREEN UPDATE
630 IF A$="S"THEN 710:'          ;GOES TO HI-RES SCREEN SAVE
640 IF A$="Q"THEN CLS:END:'      ;ENDS THIS PROGRAM
650 IF A$="^"THEN 800:'          ;GOES TO PROGRAM UPDATE ROUTINE
660 IF A$="&"THEN 810:'          ;GOES TO PROGRAM SAVE ROUTINE
670 GOTO 600
690 :
700 ERA"INV-ROM":'               ;ERASES HI-RES SCREEN FROM DISK
710 BSAVE"INV-ROM",7000,77FF:'   ;SAVES HI-RES SCREEN TO DISK
720 GOTO 820
790 :
800 :ERA"INV.ROM":'              ;ERASES THIS PROGRAM FROM DISK
810 SAVE"INV.ROM":'              ;SAVES THIS PROGRAM TO DISK
820 SOUND 25,1:GOTO 600
```

TAPE USERS: ENTER ONLY THE FOLLOWING LINES AFTER LINE 610.

```
620 IF A$="S"THEN 800:'          ;GOES TO PROGRAM SAVE ROUTINE
630 IF A$="Q"THEN CLS:END:'      ;ENDS THIS PROGRAM
640 GOTO 600
690 :
800 CSAVE"INVERSE ROM":'         ;SAVES THIS PROGRAM TO TAPE
820 SOUND 25,1:GOTO 600
```

ON THE NEXT PAGE YOU'LL SEE TWO HI-RES SCREEN PRINTOUTS PRODUCED BY THIS PROGRAM. THE LEFT ONE IS OF A STANDARD VZ ROM WHILE THE RIGHT ONE IS OF A MODIFIED VZ ROM (EPROM). IF YOU STUDY THEM CAREFULLY YOU'LL NOTE THE ERRORS IN THE LEFT ONE THAT BOB MENTIONED. ANOTHER ADVANTAGE OF THE MODIFIED EPROM IS THAT IT WILL PRINTOUT TO AN EPSON COMPATIBLE PRINTER ALL THE VZ'S INVERSE AND GRAPHIC CHARACTERS.

MODIFIED VZ ROM (EPROM):

BESIDES ALLOWING LLISTING AND LPRINTING OF ALL INVERSE AND GRAPHIC CHARACTERS THE EPROM ALSO PROVIDES ALL THE EXTENDED BASIC FUNCTIONS HOBBLED IN THE ORIGINAL VZ ROM WHICH MEANS IT IS NO LONGER REQUIRED TO LOAD ANY EXTENDED BASICS.

@ABCDEFGHIJKLMNO @ABCDEFGHIJKLMNO

PQRSTUVWXYZ[\]↑← PQRSTUVWXYZ[\]↑←

 !"#$%&'()*+,-./ !"#$%&'()*+,-./

0123456789:;<=>? 0123456789:;<=>?

## BASIC & SOURCE CODE TO WP FILE CONVERTER BY DAVE MITCHELL

THIS UTILITY WHICH SOME OF YOU MAY KNOW AS BSTWP.F (BASIC AND SOURCE CODE TO WORD PROCESSOR FILE CONVERTER) IS USED IN CONJUNCTION WITH DAVE MITCHELL'S PATCH3.3 (DISK VERSION OF E & F WORD PROCESSOR). IT CAN ALSO BE USED WITH RUSSELL HARRISON'S VERSION OF DISK WORD PROCESSOR (WORDPRO).

AS THE NAME SUGGESTS THIS UTILITY CONVERTS BASIC PROGRAMS AND EDITOR ASSEMBLER ('S' FILE TYPE ONLY) SOURCE CODE FILES INTO WORD PROCESSOR FILES WHICH CAN BE LOADED INTO EITHER DISK WORD PROCESSOR. CONVERTING COULD'NT BE SIMPLER, IT'S JUST A MATTER OF ENTERING THE BASIC OR SOURCE CODE FILENAME AND ONCE LOADED ENTERING THE WP FILENAME. PRESSING RETURN WITHOUT FILENAME WILL PRESENT USER WITH DISK DIRECTORY IN 3 COLUMNS.

CONVERTING IS VERY FAST, DO'NT BLINK OR YOU MAY MISS IT. THE WP FILES ARE SAVED TO DISK WITH A 'W' FILETYPE WITH AN END ADDRESS OF D000H. BOTH BASIC AND SOURCE CODE FILES ARE PADDED OUT TO 5 DIGITS WITH LEADING ZEROES WHICH YOU MAY HAVE COME ACROSS IN THE JOURNAL ON NUMEROUS OCCASIONS.

AS YOU ENTER THE SOURCE CODE SAVE IT EVERY SO OFTEN SO YOU WON'T LOSE ALL YOUR TYPING. SAVE THE SOURCE CODE AS CONV.SRC AND THE OBJECT CODE AS CONVERT.

**WARNING:** YOU SHOULD BE AWARE THAT ANY GRAPHIC CHARACTERS IN YOUR CONVERTED BASIC PROGRAM WILL PRINT OUT AS GARBAGE AND IS A LIMITATION OF THE WORD PROCESSOR.

ANYONE WHO HAS TRIED THE PRINTER FUNCTION OF THEIR EDITOR ASSEMBLER WILL FIND THIS UTILITY VERY HANDY FOR PRINTING OUT SOURCE CODE FILES AS IT CAN TAKE ADVANTAGE OF ALL THE PRINTER FUNCTIONS OF PATCH3.3 OR WORDPRO HAS TO OFFER.

## CONVERT VERSION 3.1A:

BRIAN GREEVE OF WA HAS MODIFIED CONVERT BY ADDING EXTRA FUNCTIONS MAKING IT VERY VERSATILE INDEED. THANKS BRIAN. CONV3.1A WILL CONVERT ALL SOURCE CODE FILETYPES, EG: S, A & W AS WELL AS QUICK WRITE 'F' WORD PROCESSOR FILES. OTHER OPTIONS ARE NUMBER OF DIGITS SELECT, 1-5 AND D000 OR FE00 WP FILE END ADDRESS FOR PATCH3.3 OR WORDPRO.

```
001 ;BASIC AND SOURCE CODE
002 ;TO WORD PROCESSOR FILE.
003 ;BY D.MITCHELL - 07B00H
004        LD   SP,7AFFH
005        PUSH IY
006        LD   HL,(78B1H)
007        LD   BC,END-HO
008        PUSH BC
009        XOR  A
010        SBC  HL,BC
011        LD   (78B1H),HL
012        INC  HL
013        PUSH HL
014        XOR  A
015        LD   BC,33H
016        SBC  HL,BC
017        LD   (78A0H),HL
018        DEC  HL
019        LD   (78E8H),HL
020        LD   DE,HO
021        POP  HL
022        PUSH HL
023        XOR  A
024        SBC  HL,DE
025        EX   DE,HL
026        LD   B,33
027        LD   IX,LT
028 RC     LD   L,(IX+00)
029        LD   H,(IX+01)
030        PUSH BC
031        PUSH HL
032        PUSH HL
033        POP  BC
034        POP  IY
035        LD   L,(IY+00)
036        LD   H,(IY+01)
037        ADD  HL,DE
038        LD   A,L
039        LD   (BC),A
040        INC  BC
041        LD   A,H
042        LD   (BC),A
043        INC  IX
044        INC  IX
045        POP  BC
046        DJNZ RC
047        POP  DE
048        LD   (7200H),DE
049        LD   HL,HO
050        POP  BC
051        LDIR
052        POP  IY
053 L1     LD   HL,ERR
054        LD   (79ADH),HL
055        LD   A,0C3H
056        LD   (79ACH),A
057        LD   HL,7AE9H
058        LD   (78A4H),HL
059        CALL 1B4DH
060        LD   HL,(7200H)
061        JP   (HL)
062 LT     DEFW L1+1
063        DEFW HO+1
064        DEFW E1+1
065        DEFW L2+1
066        DEFW L3+1
067        DEFW L4+1
068        DEFW L5+1
069        DEFW L6+1
070        DEFW A0+1
071        DEFW L7+1
072        DEFW L8+1
073        DEFW L9+1
074        DEFW L10+1
075        DEFW L11+1
076        DEFW B0+1
077        DEFW L12+1
078        DEFW L13+1
079        DEFW L14+1
080        DEFW L15+1
081        DEFW L16+2
082        DEFW L17+2
083        DEFW L18+1
084        DEFW L18A+1
085        DEFW L19+1
086        DEFW E2+1
087        DEFW L20+1
088        DEFW L21+1
089        DEFW L22+1
090        DEFW IPUT+1
091        DEFW L23+1
092        DEFW ERR+2
093        DEFW M1+1
094        DEFW M2+1
095 HO     LD   HL,MES0
096        CALL 2B75H
097 L2     LD   HL,M1
098 L3     LD   (ADD),HL
099 M1     LD   HL,MES1
100        CALL 2B75H
101 E1     CALL IPUT
102 L4     CALL DLY
103        CALL 402CH
104        CP   2
105        JR   Z,S2
106 S1     OR   A
107        JP   NZ,400EH
108        LD   A,0DH
109        JR   S1
110 S2     LD   A,(IY+10)
111        CP   "T"
112        JR   Z,S3
113        CP   "S"
114        JR   Z,S3
115        LD   A,0CH
116        JR   S1
117 S3     LD   (IY+9),A
118        CALL 4041H
119        OR   A
120        JP   NZ,400EH
121        CALL 400BH
122        LD   A,(IY+9)
123        CP   "T"
124        JR   NZ,B0A
```

```
125        LD    DE,4
126        LD    HL,(78F9H)
127        ADD   HL,DE
128 L5     LD    (BUF1),HL
129 L6     LD    (BUF2),HL
130        LD    HL,(78A4H)
131 A0     CALL  EXIT
132        LD    A,(HL)
133        INC   HL
134        LD    (7921H),A
135        LD    A,(HL)
136        INC   HL
137        LD    (7922H),A
138        PUSH  BC
139        PUSH  HL
140 L7     CALL  BTA
141 L8     LD    (BUF1),HL
142        LD    (78A7H),HL
143        POP   HL
144        CALL  2B7EH
145        LD    HL,(78A7H)
146 A1     LD    A,(HL)
147        OR    A
148        JR    Z,A3
149        CP    40H
150        JR    C,A2
151        CP    5BH
152        JR    NC,A2
153        ADD   A,20H
154        LD    (HL),A
155 A2     INC   HL
156        JR    A1
157 A3     LD    (HL),0DH
158        INC   HL
159        LD    (HL),0DH
160        INC   HL
161 L9     LD    (BUF1),HL
162        LD    HL,79E8H
163        LD    (78A7H),HL
164        POP   HL
165        JR    A0
166 B0A    LD    HL,(78F9H)
167        LD    (HL),0
168        INC   HL
169        LD    (HL),0
170        LD    HL,8000H
171 L10    LD    (BUF1),HL
172 L11    LD    (BUF2),HL
173        LD    HL,0A280H
174 B0     CALL  EXIT
175        INC   HL
176        LD    (7921H),BC
177        PUSH  HL
178 L12    CALL  BTA
179        EX    DE,HL
180        POP   HL
181        LD    A,(HL)
182        CP    7BH
183        JR    Z,B1
184        CP    7AH
185        JR    Z,B1
186        CP    6AH
187        JR    Z,B1
188        LD    B,5
189 L13    CALL  C0
190        LD    B,5
191 L14    CALL  C0
192        LD    B,12H
193 L15    CALL  C0
194        JR    B4
195 B1     LD    A,(HL)
196        CP    0FFH
197        JR    Z,B4
198        CP    5BH
199        JR    NC,B3
200        ADD   A,20H
201 B2     LD    (DE),A
202        INC   DE
203        INC   HL
204        JR    B1
205 B3     RES   6,A
206        JR    B2
207 B4     LD    A,0DH
208        LD    (DE),A
209        INC   DE
210        LD    (DE),A
211        INC   DE
212 L16    LD    (BUF1),DE
213        INC   HL
214        JR    B0
215 C0     LD    A,(HL)
216        CP    60H
217        JR    Z,C2
218        CP    0FFH
219        RET   Z
220        CP    5BH
221        JR    NC,C1
222        ADD   A,20H
223        JR    C3
224 C1     RES   6,A
225        JR    C3
226 C2     LD    A,20H
227        DEC   HL
228 C3     LD    (DE),A
229        INC   DE
230        INC   HL
231        DEC   B
232        JR    NZ,C0
233        INC   HL
234        RET
235 EXIT   LD    C,(HL)
236        INC   HL
237        LD    B,(HL)
238        INC   HL
239        LD    A,B
240        OR    C
241        RET   NZ
242 L17    LD    DE,(BUF2)
243 L18    LD    HL,(BUF1)
244        LD    (HL),0DH
245        PUSH  HL
246        OR    A
247        SBC   HL,DE
248        JR    Z,EI
```

```
249        PUSH HL
250        POP  BC
251        INC  BC
252        LD   HL,0CFFFH
253        EX   DE,HL
254        POP  HL
255        LDDR
256        INC  DE
257        LD   (78A4H),DE
258        LD   HL,0D000H
259        LD   (HL),0
260        LD   (78F9H),HL
261 L18A   LD   HL,M2
262 L19    LD   (ADD),HL
263 M2     LD   HL,MES2
264        CALL 2B75H
265 E2     CALL IPUT
266        LD   (IY+9),"W"
267 L20    CALL DLY
268        IN   A,(13H)
269        BIT  7,A
270        JR   Z,S4
271        LD   A,4
272        JP   400EH
273 S4     CALL 4044H
274        OR   A
275        JP   NZ,400EH
276        CALL 400BH
277 EI     EI
278 L21    JP   HO
279 BTA    LD   BC,0606H
280 L22    LD   HL,(BUF1)
281        CALL 132FH
282        DEC  HL
283        LD   (HL),20H
284        INC  HL
285        RET
286 DLY    DI
287        CALL 4008H
288        LD   BC,0032H
289        CALL 4038H
290        RET
291 BR     PUSH IY
292        POP  HL
293        DEC  HL
294        LD   (78B1H),HL
295        LD   BC,65485
296        ADD  HL,BC
297        LD   (78A0H),HL
298        LD   HL,7AE9H
299        LD   (78A4H),HL
300        LD   A,0C9H
301        LD   (79ACH),A
302        CALL 1B4AH
303        JP   1A19H
304 IPUT   LD   HL,MES3
305        CALL 2B75H
306        CALL 053AH
307        JR   C,BR
308        LD   A,(DE)
309        CP   20H
310        JR   Z,DIR
311        LD   A,20H
312        LD   (DE),A
313        INC  HL
314        PUSH IY
315        POP  DE
316        INC  DE
317        LD   BC,8
318        LDIR
319        RET
320 DIR    CALL 01C9H
321        XOR  A
322        LD   (IY+11H),A
323        LD   (IY+12H),A
324        LD   (7AAEH),A
325 L23    CALL DLY
326 D1     DI
327        CALL 4035H
328        CP   11H
329        JR   Z,D7
330        OR   A
331        JP   NZ,400EH
332        LD   L,(IY+31H)
333        LD   H,(IY+32H)
334        LD   B,8
335 D2     LD   A,(HL)
336        OR   A
337        JR   Z,D7
338        PUSH BC
339        CP   1
340        JR   NZ,D3
341        LD   DE,16
342        ADD  HL,DE
343        JR   D6
344 D3     LD   B,10
345        EI
346 D4     LD   A,(HL)
347        INC  HL
348        CALL 033AH
349        DJNZ D4
350        LD   A,(7AAEH)
351        ADD  A,10
352        AND  20H
353        JR   NZ,D5A
354        LD   A,20H
355        CALL 033AH
356        JR   D5
357 D5A    LD   A,0DH
358        CALL 033AH
359        LD   A,1BH
360        CALL 033AH
361 D5     LD   DE,6
362        ADD  HL,DE
363 D6     POP  BC
364        DJNZ D2
365        INC  (IY+11H)
366        LD   A,(IY+11H)
367        CP   0FH
368        JR   NZ,D1
369 D7     CALL 400BH
370        EI
371        POP  BC
372 ERR    LD   BC,(ADD)
```

```
373        PUSH BC
374        RET
375 ADD    DEFW 0
376 BUF1   DEFW 0
377 BUF2   DEFW 0
378 MES0   DEFB 1FH
379 *  THIS PROGRAM WILL MAKE WO
380 *RD*
381        DEFB 0DH
382 * PROCESSOR FILES FROM*
383 * BASIC AND  EDITOR ASSEMBL*
384 *ER SOURCE CODES*
385        DEFB 0DH
386 *      WRITTEN BY D.MITCHELL*
387        DEFB 0DH
388        NOP
389 MES1   DEFB 0DH
390 * ENTER B/S *
391        NOP
392 MES2   DEFB 0DH
393 * ENTER WP. *
394        NOP
395 MES3   EQU  $
396 *FILENAME :*
397        NOP
398 END    NOP
```

## VZ NUMBERS FREQUENCY

THIS PROGRAM IS DESIGNED TO KEEP TRACK OF WINNING NUMBERS IN POOLS AND GO LOTTO. THERE IS A CHOICE OF PRIME NUMBERS ONLY OR CAN INCLUDE SUPPLEMENTARY NUMBERS AS WELL. WITH SOME MINOR MODIFICATIONS THIS PROGRAM COULD BE ALTERED TO KEEP TRACK OF OTHER NUMBER FREQUENCIES.

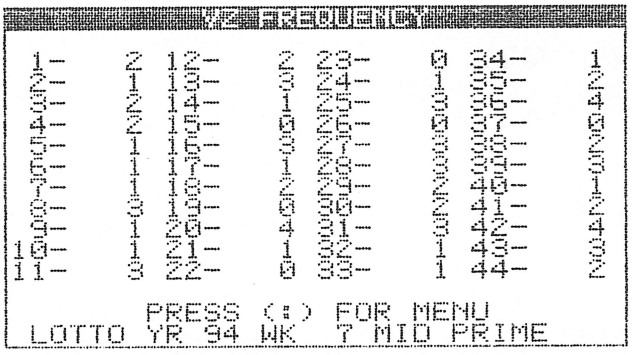
THE LEFT PRINTOUT BELOW SHOWS GO LOTTO FREQUENCY NUMBERS FOR THE YEAR OF 1994 UP TO THURSDAY, WEEK 7 WHILE THE ONE ON THE RIGHT IS FOR THE SAME TIME PERIOD, BUT INCLUDES SUPPLEMENTARY NUMBERS AS WELL.

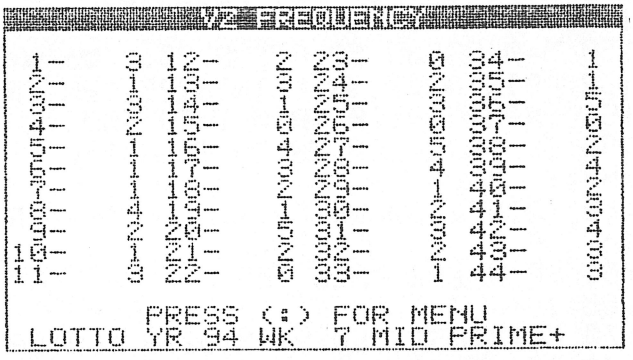
THERE ARE TWO INPUT CHOICES:

1) INSERT - THIS ALLOWS YOU TO INSERT NUMBERS AS THEY ARE DRAWN AND/OR ADD TO EXISTING NUMBERS.
2) EDIT - IF YOU HAVE BEEN KEEPING TABS OF NUMBERS USING PENCIL AND PAPER THEN THIS OPTION WILL ALLOW YOU TO ENTER NUMBERS IN THE RANGE FROM 0 TO 9999 MAXIMUM.

ALSO TO THE BEST OF MY KNOWLEDGE THIS IS THE FIRST TIME THAT A 4 BYTE MULTI USR CALL ROUTINE HAS BEEN USED IN A PUBLISHED PROGRAM WHICH WAS DESCRIBED IN ISSUE # 31, PAGE 14. IT SIMPLIFIES THE CALLING OF M/C ROUTINES WHICH ARE:

1) VZ SOUND BEEPER.
2) M/C CLS (CLEAR PART SCREEN - 14 LINES.)
3) M/C DIRECTORY ROUTINE WHICH WILL BE PUBLISHED IN NEXT ISSUE.



```
10 GOTO1000
12 ERA"--------":RETURN
14 REN"--------","--------":RETURN
16 OPEN"--------",0
18 IN#"--------",YR,WK,R,L$,P$:RETURN
20 FORI=1TOR
22 IN#"--------",C(I):NEXT
24 CLOSE"--------":RETURN
26 SAVE"--------":RETURN
34 :
36 '"[illegible]
38 :
40 FOR O=0 TO 7:POKE AD+O,ASC(MID$(N$+"        ",O+1,1))
42 NEXT:RETURN
44 :
46 FOR O=0 TO 2:POKE AD+O,ASC(MID$(X$,O+1,1)):NEXT:RETURN
48 :
50 CLS:POKE 30777,1:PRINT"[illegible]";
52 IF M>0 THEN RETURN:'32 INVERSE SPACES ^^
54 PRINT@9,FR$:RETURN
58 :
60 PRINT@275,"N":PRINT@258,"ARE YOU SURE   ";:RETURN
62 :
64 PRINT@487,M$;:RETURN
66 :
68 PRINT@226,"SELECTED DRIVE >";D:RETURN
78 :
80 ND=0:FOR I=1 TO R:IF C(I)>0 THEN ND=1:I=R:'"[illegible]
82 NEXT:IF ND=1 THEN RETURN
84 PRINT@393,"[illegible]":SOUND 5,6:ND=0:RETURN
88 :
90 IF R=44 THEN PL$="LOTTO" ELSE PL$="POOLS"
91 PRINT@481,PL$;:PRINT" YR    WK";
92 PRINT@490,USING"##";YR;
93 PRINT@496,USING"##";WK;
94 PRINT@499,USING"% %";L$;
95 PRINT@503,P$;:RETURN
98 :
100 AD=31535:GOSUB 40:'POKE LINE 16 FILENAME
106 AD=31555:GOSUB 40:'POKE LINE 18 FILENAME
108 AD=31600:GOSUB 40:'POKE LINE 22 FILENAME
110 AD=31627:GOSUB 40:'POKE LINE 24 FILENAME
112 AD=31551:GOSUB 46:'POKE LINE 18 IN#/PR#
114 AD=31596:GOSUB 46:'POKE LINE 22 IN#/PR#
116 POKE 31545,X    :'POKE LINE 16 0 OR 1
118 :
120 IF U=2 THEN AD=31483:GOSUB 40:GOSUB 12:'POKE LINE 12 F'NAME
122 GOSUB 16:GOSUB 90:GOSUB 20
124 IF U=0 THEN 500 ELSE 400
148 :
150 M=0:GOSUB 50:GOSUB 90:'"[illegible]
152 PRINT@247,YR:PRINT@226,"ENTER YEAR  (94-99) ";
154 INPUT YR:IF YR=0 THEN 300
156 IF YR<94 OR YR>99 THEN 152
158 :
160 PRINT@279,WK:PRINT@258,"ENTER WEEK  (00-52) ";:INPUT WK
162 IF WK=0 THEN 300
164 IF WK>52 THEN 160
168 :
170 PRINT@312,L$:PRINT@290,"ENTER (MON MID SAT) ";:INPUT L$
172 IF L$="" THEN 300
174 L$=LEFT$(L$,3):GOTO 300
```

```
198 :
200 M=0:GOSUB 50:GOSUB 90:'"[illegible]
202 :
204 IF R=44 THEN PRINT@243,"L" ELSE PRINT@243,"P"
206 PRINT@226,"LOTTO OR POOLS ";:INPUT Y$
208 :
210 IF Y$="L"THEN R=44:P=8:PRINT@481,"[illegible]";:GOTO 216
212 IF Y$="P"THEN R=38:P=7:PRINT@481,"[illegible]";:ELSE 204
214 :
216 PRINT@275,"N":PRINT@258,"PRIME #'S ONLY ";:INPUT P$
218 :
220 IF P$="Y"THEN P$="PRIME ":P=6:GOTO 230
222 IF P$="N"THEN P$="PRIME+":GOTO 230 ELSE 216
224 :
230 X=USR(31348):'CLEAR PART SCREEN
232 L=98:FOR A=1 TO P
234 :
236 IF A<7 THEN PRINT@L,"ENTER WINNING #";A;"-> ";
238 IF A=7 THEN L=322
240 IF A>6 THEN PRINT@L,"SUPPLEMENTARY NUMBER ";
242 :
244 INPUT N(A)
246 IF N(A)=0 THEN A=P:GOTO 300
248 IF A<7 THEN IF N(A)>R THEN 236
250 IF A>6 THEN IF N(A)>R THEN 240
252 T=0:IF A<>1 THEN FOR I=1 TO A-1:T=T-(N(I)=N(A)):NEXT I
254 IF (T) THEN 236
256 L=L+32:NEXT
258 :
260 PRINT@441,"Y":PRINT@418,"ARE NUMBERS CORRECT  ";
262 :
264 INPUT Y$:IF Y$="Y"THEN 270
266 IF Y$="N"THEN 232 ELSE 260
268 :
270 FOR I=1 TO P:'"[illegible]
272 C(N(I))=C(N(I))+1:NEXT
274 :
276 PRINT@441,"Y":PRINT@418,"ENTER MORE NUMBERS   ";:INPUT Y$
278 :
280 IF Y$="Y"THEN 230
282 IF Y$="N"THEN 500 ELSE 276
298 :
300 M=0:GOSUB 50:'"[illegible]
302 :
304 PRINT@073,"I) INSERT  DATA"
306 PRINT@105,"E) EDIT    DATA"
308 PRINT@137,"D) DISPLAY DATA"
310 :
312 PRINT@201,"P) PRINT   DATA"
314 PRINT@233,"C) CLEAR   DATA"
316 PRINT@265,"Y) ENTER  YR/WK"
318 :
320 PRINT@329,"Q) QUIT & PARK"
324 PRINT@361,";) SUB  MENU"
326 PRINT@393,":) DISK MENU   "
342 :
344 GOSUB 90:SOUND 25,1
346 POKE 30777,35
348 :
350 C$=INKEY$:C$=INKEY$:IF C$=""THEN 350 ELSE X=USR(13392)
352 :
354 IF C$="I"THEN 200
```

```
356 IF C$="E"THEN 900
358 IF C$="D"THEN 500
360 :
362 IF C$="P"THEN 550
364 IF C$="C"THEN RUN
366 IF C$="Y"THEN 150
368 :
370 IF C$="Q"THEN 680
372 IF C$=";"THEN 960
374 IF C$=":"THEN 400
378 :
396 GOTO 350
398 :
400 M=0:GOSUB 50:'"[illegible]
402 :
404 PRINT@073,"L) LOAD   DATA"
406 PRINT@105,"S) SAVE   DATA"
408 PRINT@137,"U) UPDATE DATA"
410 :
412 PRINT@201,"E) ERASE  FILE"
414 PRINT@233,"R) RENAME FILE"
416 PRINT@265,"I) INIT DISK"
418 :
420 PRINT@329,"D) DIRECTORY"
422 PRINT@361,"1) DRIVE 1/2"
424 PRINT@393,":) MAIN MENU   "
428 :
430 DRIVE D:PRINT@361,USING"#";DR
442 :
444 GOSUB 90:SOUND 25,1
446 POKE 30777,35
448 :
450 D$=INKEY$:D$=INKEY$:IF D$=""THEN 450 ELSE X=USR(13392)
452 :
454 IF D$="L"THEN U=0:GOTO 650
456 IF D$="S"THEN U=1:GOTO 650
458 IF D$="U"THEN U=2:GOTO 650
459 :
460 IF D$="E"THEN 600
462 IF D$="R"THEN 620
463 :
464 IF D$="D"THEN 850
466 IF D$="I"THEN 780
470 IF D$="1"THEN D=1:DR$="[illegible]":GOTO 430
472 IF D$="2"THEN D=2:DR$="[illegible]":GOTO 430
474 :
476 IF D$=":"THEN 300
494 :
496 GOTO 450
498 :
500 GOSUB 80:IF ND=0 THEN 326:'"[illegible]
502 M=0:GOSUB 50:GOSUB 90
508 :
510 E$="##":F$="#### ":PRINT@64,"";
518 :
520 IF R=38 THEN X1=10:Y1=30:ST=10
522 IF R=44 THEN X1=11:Y1=33:ST=11
524 FOR X=1 TO X1:FOR Y=0 TO Y1 STEP ST
526 IF R=38 THEN IF X+Y>38 THEN PRINT:GOTO 534
528 :
530 PRINT USING E$;X+Y;:PRINT"-";
532 PRINT USING F$;C(X+Y);
```

```
534 NEXT Y:NEXT X
536 E$="":F$=""
542 :
544 PRINT@455,M$
546 IF INKEY$=":"THEN 300 ELSE 546
548 :
550 GOSUB 80:IF ND=0 THEN 326:'"[illegible]
552 M=1:GOSUB 50:PRINT@11,"[illegible]":GOSUB 90
554 :
556 GOSUB 60:INPUT Y$
558 IF Y$="N"THEN 300
560 IF Y$="Y"THEN 564 ELSE 556
562 :
564 E$="##":F$="**## "
566 LPRINT TAB(10)"VZ ";PL$;" YR ";USING E$;Y;
568 LPRINT" WK ";USING E$;W;:LPRINT" ";USING"%  %";L$;
570 LPRINT USING"%     %";P$:LPRINT
572 :
574 IF R=38 THEN X1=10:Y1=30:ST=10
576 IF R=44 THEN X1=11:Y1=33:ST=11
578 FOR X=1 TO X1:FOR Y=0 TO Y1 STEP ST
580 IF R=38 THEN IF X+Y>38 THEN 590
584 :
586 LPRINTTAB(10)USING E$;X+Y;:LPRINT"-";
588 LPRINT USING F$;C(X+Y);
590 NEXT Y:LPRINT
594 NEXT X:LPRINT
596 E$="":F$="":GOTO 300
598 :
600 M=1:GOSUB 50:PRINT@10,"[illegible]";:GOSUB 68:PRINT@258,EF$;
602 :
604 SOUND 30,1:INPUT N$
606 IF N$=""THEN 400
608 IF LEN(N$)>8 THEN 600
610 AD=31483:GOSUB 40:GOSUB 12
612 GOTO 400
618 :
620 M=1:GOSUB 50:PRINT@10,"[illegible]";:GOSUB 68
622 :
624 PRINT@258,"OLD FILENAME > ";:SOUND 30,1:INPUT N$
626 IF N$=""THEN 400
628 IF LEN(N$)>8 THEN 620
630 AD=31503:GOSUB 40
632 :
634 PRINT@290,"NEW FILENAME > ";:SOUND 30,1:INPUT N$
636 IF N$=""THEN 400
638 IF LEN(N$)>8 THEN 634
640 AD=31514:GOSUB 40
642 GOSUB 14:GOTO 400
648 :
650 IF U>0 THEN GOSUB 80:IF ND=0 THEN 424:'"[illegible]
652 M=1:GOSUB 50
654 IF U=0 THEN PRINT@11,"[illegible]";
656 IF U=1 THEN PRINT@11,"[illegible]";
658 IF U=2 THEN PRINT@10,"[illegible]";
660 PRINT"[illegible]":GOSUB 90:GOSUB 68
662 :
664 PRINT@275,N$:PRINT@258,EF$;
666 INPUT N$:IF N$=""THEN 400
668 IF LEN(N$)>8 THEN664
```

- - CONTINUED NEXT ISSUE - -

# 44-19 VZ-EPSON PRINTER PATCH V1.4

## BY LARRY TAYLOR - PUBLIC DOMAIN

The VZ-EPSON PRINTER PATCH allows EPSON or EPSON compatible printers to LPRINT or LLIST all of the VZ's inverse and graphics characters.

These same characters can also be dumped to the printer from the LO-RES screen, when the COPY command is used. In MODE(1), use of the COPY command will dump the HI-RES screen to the printer. In addition, an extension of the COPY command has been provided. The new command is COPYA. If COPYA is used in MODE(0), a dump of the LO-RES screen will be made without the usual linefeeds, whilst in MODE(1), a larger than normal dump of the HI-RES screen will be printed. To cater to differences in line feeds between printers, both commands may be used in the form COPYn and COPYAn, where n is a value ranging from 4 to 8. Changing n allows selection of a line feed setting apppropriate to the printer being used. Should COPY or COPYA not be followed by a line feed value, then a default setting of 6 will be used.

Three additional commands, LTAB(n), PAGE(n) and FEED(n) have also been added. The LTAB(n) command is used to set a left margin for any output to the printer, whether from an LPRINT statement, during LLISTing of a BASIC program or when doing a screen dump. The value n may be in the range 0 to 63, indicating the number of spaces in from the left that printing will occur. A printout of the disk directory at the current LTAB(n) position can be obtained by first setting the output device code to printer, followed by the DIR command. eg. POKE30876,1:DIR

PAGE(n) sets the page length and n may be in the range 0 to 127. FEED(n) sets the number of linefeeds between the end of printed text and the end of the page. It can be in the range from 0 to 127, but unless it is less than the page length, it will be ignored. Setting a valid linefeed value, causes a form feed to occur automatically. If n is set to 0 then the automatic form feed is switched off. LTAB(n), PAGE(n), FEED(n), LLIST, LPRINT and both the COPY commands may be entered either directly from the keyboard, or used from within a program, but will only function correctly whilst the PRINTER PATCH is present.

The utility locates and protects itself according to available memory, allowing BASIC programs to be loaded and worked on normally. When LLISTing a BASIC program, the routine is also able to recognize all of the hidden commands, which may have been entered using an EXTENDED BASIC. Although not dependent on it, the routine can be used with Steve Olney's EXTENDED BASIC already resident in memory and will not interfere with it in any way. To use it in this way, first load the extended BASIC and then the PRINTER PATCH. Once the READY message appears you will have access to both the EXTENDED BASIC and the improved printer commands.

## DAVE MITCHELL

E & F WP PATCH 3.3
MENU & FILE COPIER
EXTENDED DOS V1.3
MONITOR 6000H
DISK FILER & CATALOGUER

E & F WP PATCH 3.4
MENU & FILE COPIER 6000H
EXTENDED DOS 6000H
DISK FILE COPIER 6000H

## MARK HARWOOD

MARK 32 DATABASE
DISK EDITOR ASSEMBLER

MARK 64 DATABASE
VZ USER NEWSLETTERS - 22 ISSUES

## LARRY TAYLOR

VZ EPSON PRINTER PATCH 1.4
COPYPRO 4: FILE COPIER/PROTECTOR
COPYPRO 5: TWO DRIVE DISK ONLY
DISK COPY 2: SINGLE DRIVE COPIER
FILE SEARCH 2 (DISK/TAPE CONTENTS)
DISK MENU (MEMORY RESIDENT)

ESCAPE RIVER (LO/HI-RES ADVENTURE)
FACTORY (EDUCATIONAL GAME)
TOWER OF HANOI (EDUCATIONAL GAME)
NAME THE TOWNS (EDUCATIONAL)
MICROSCOPE (EDUCATIONAL)
SNERTLE (EDUCATIONAL MATHS)

**BRIAN GREEVE:** MACHINE CODE DATA 2

**H.V. VZ U. G.:** HUNTER VALLEY VZ JOURNAL

**DICK SMITH EL:** IT COULD BE SAFELY SAID THAT IT IS PUBLIC DOMAIN ALSO AS FOR A COUPLE YEARS NOW THEY HAVE REFERED TO ME PERSONS WISHING TO AQUIRE VZ SOFTWARE, HARDWARE OR VARIUOS PUBLICATIONS.

**NOTE:** I HAVE MOST OF THE ABOVE PROGRAMS AND THEY CAN BE HAD JUST FOR THE PRICE OF COVERING COSTS LIKE POST, PACKING, DISKS, ETC.

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## CONTRIBUTIONS TO THE JOURNAL

IF YOU ARE THINKING OF CONTRIBUTING TO THE JOURNAL THE PREFERED FORMAT IS BASIC LISTINGS, WORD PROCESSOR OR SOURCE CODE FILES ON TAPE OR DISK. FILES FROM ALL EDITOR ASSEMBLERS AND WORD PROCESSORS CAN BE ACCEPTED. THE PREFERED WORD PROCESSORS ARE LESLIE MILBURN QUICK WRITE, RUSSELL HARRISON WORDPRO AND DAVE MITCHELL PATCH 3.3.

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